DOCUMENT RESUME

ED 076 905 CG 008 010

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TITLE Vocational Preference Inventory Response Patterns of College of Education Freshmen Women.
INSTITUTION Missouri Univ., Columbia. Coll. of Education.
PUB DATE [70]
NOTE 12p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Behavior Theories; Career Planning; *College Freshmen; Decision Making; Education Majors; Environment; Environmental Influences; Females; Measurement Techniques; *Occupational Choice; Occupational Clusters; Occupational Guidance; *Occupational Tests; Personality Theories; Schools of Education; Student Testing; *Teacher Education; Teaching; Tests; *Vocational Interests
IDENTIFIERS Vocational Preference Inventory

ABSTRACT

This study assessed the differences in Vocational Preference Inventory (VPI) scoring patterns among various expected teaching majors for freshmen women enrolled in a required College of Education course designed to aid in their vocational decision-making as it relates to a professional teaching career. The theoretical basis for the VPI centers around the individual's personality type and its interaction with the environment from which various predictions can be made concerning specific vocational decisions. The report concluded that using a four to six point classification appears to discriminate better between various teaching majors than does the use of a one to three point classification and that the establishment of local VPI classifications by teaching majors appears to be preferable to relying solely upon Holland's classification. (Author/LAA)

ED 076905

# VOCATIONAL PREFERENCE INVENTORY RESPONSE PATTERNS

## Of College of Education Freshmen Women

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The study assessed the differences in Vocational Preference Inventory (VPI) scoring patterns among various expected teaching majors for freshmen women enrolled in a required College of Education course entitled, "Introduction to Education." The major objective of the course is to aid the students in their vocational decision-making process particularly as it relates to a professional teaching career. To aid in this endeavor, several assessment techniques are used; namely, the Strong Vocational Interest Blank (SVIB), Super's Work Values Inventory (WVI), and Holland's Vocational Preference Inventory (VPI). If the various instruments used are to be of value and their use justified, it becomes especially important to use an instrument that produces valid results for a student body dominated, particularly at the freshmen level, by women (80% of the students enrolled in the College of Education at the freshman level are women). The Vocational Preference Inventory (VPI) and its use with freshmen women enrolled in the College of Education provides the basis for this study.

The theoretical basis for the use of John L. Holland's Vocational Preference Inventory (VPI) centers around the individual's personality type and its interaction with the environment. Holland's theory attempts to describe an individual's behavioral orientation from which various predictions can be made concerning specific vocational (career) decisions. Holland asserts that each person has a "personality orientation--a

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hierarchy of habitual or preferred methods for dealing with environmental tasks." (Holland, 1966) Consequently, an individual searches for an environment which corresponds to his behavioral orientation (personality type). Furthermore, Holland asserts that there are six occupational orientations (environments). The basic environments are: Realistic, which includes technical, skilled, labor, etc., occupational orientations; Investigative (Intellectual), including scientific occupations; Social, including educational and social welfare occupations; Conventional, including office and clerical occupations; Enterprising, including managerial and sale occupations; and Artistic, including literary, musical, and artistic occupations. (Holland, 1966)

## Population

The 1,131 females completing the VPI represents a combined total of students as freshmen in the College of Education beginning with the Fall Semester, 1970, and continuing through the Winter Semester, 1973. The total represents approximately 75 percent of all women enrolled during the six semesters under study. The VPI was administered within the first two weeks of class in the course, "Introduction to Education," required of all freshmen enrolled in the College of Education.

## Instrument

The VPI, developed by John L. Holland, consists of a list of 160 occupational titles for which the student simply responds "yes" to those items that are interesting or appealing and "no" to those that are not. If a student is indifferent or cannot make up his mind, the item is simply left blank. The instrument has eleven scales. Although all eleven scales are listed in table form within the body of this report, only the first six scales, the so-called personality scales, are discussed.

Procedure

VPI responses were collected from students enrolled in "Introduction to Education" within the first two weeks of class; however, for purposes of this study, only the female responses were utilized. (Most of the studies using the VPI have reported on its use with male subjects; but considering the large enrollment of females at the freshmen level in the College of Education, it was decided that the concentration of effort should be directed towards determining the appropriateness of its use with female subjects.)

In addition, each student was instructed to indicate her present choice of a teaching major. After the VPIs were scored, each student's name, student ID number, scale score for each of the eleven scales, sex, and academic major (classified by a number, i.e. a social studies major is coded 33) was punched onto a computer card.

Means and standard deviations for each scale were found for the total group (See Table A at the end of this report) as well as for each teaching major. Percentile ranks by scale scores were also found for the total group (See Table B). In addition, a six point classification code by major was determined (See Table C). Finally, the six personality scales were analyzed to determine their inter-correlations (See Table D).

Discussion

The findings, as expected in any homogeneous population, did not support the contention that it is possible to discriminate among various groups of students (in this case, expected teaching field) on the basis of their high point code (dominate personality type) as measured by the VPI (See Table C). For example, of the fifteen teaching majors in which females are enrolled, only four did not have the Social scale as the scale with the highest mean score. Of the remaining four, three had Artistic as the

highest mean score and the fourth Investigative. It is interesting to note that all fifteen teaching majors had the Social scale among the first two scales with the highest means.

According to Holland (1969), "Students with the same high point scale can still be distinguished by their second highest VPI scale. And students whose first two highest scales were the same, can still be distinguished by their third highest scale." Either or both the Social and Artistic scales appearing within the first two or three high point scales for each major would be expected in light of the fact that for this sample of College of Education females, the overall three point classification is SAE. If the primary purpose of administering the VPI to freshmen women is to aid them in a specific choice of a teaching major, simply classifying each major based upon coded mean VPI scores of the three highest scales of students aspiring to a teaching major is not sufficient. In a homogeneous population a three point scale code does not appear to discriminate sufficiently between the various teaching majors.

When examining the six-point classification (see Table C) of the various teaching majors within the College of Education (obtained by finding the means for each of the six VPI scales of students aspiring to a specific teaching major and arranging them in a hierarchy from highest to lowest) previously ignored or unused information (the last two or three scales in the hierarchy) appears to take on a more special significance.

If one accepts the proposition that an individual's selection of an occupation (in this case the choice of a teaching major) is not totally the culmination of a movement towards that selection but also may, in part at least, be due to the movement away from certain undesirable occupations, then it may be just as important to examine the three lowest scales (degree or direction of rejection) as it is to examine the three highest.

For example, the six-point code differentiates between a Physical Education teacher (SAEIRC) and a Speech Teacher (SAECIR) better than a three point classification for a Physical Education Teacher (SAE) and a Speech Teacher (SAE). A six-point classification differentiates between an Art Teacher (ASIERC) and a Music Teacher (ASIECR) better than a three point classification for an Art Teacher (ASI) and a Music Teacher (ASI), and so on.

In the case of a Physical Education teacher versus a Speech teacher, the real key towards differentiating between the two majors on the basis of their six-point VPI code might possibly be due to the degree of rejection, within the six-point heirarchy, of the characteristics describing the Conventional type (the Physical Education teacher rejects the characteristics ascribed to the conventional type to a greater degree than does the Speech Teacher).

In looking at the six-point codes for the fifteen majors represented in this sample of College of Education freshmen women there are several majors that have the same six-point code. For example, those majors coded SAECIR include Behavioral Science, Home Economics and Speech. Those coded SAEICR include Elementary, English, Special Education, and Speech Clinician. Those coded ASEICR include English and Foreign Language. The seven remaining majors have six-point codes that are unique to a particular major.

Another interesting discovery evolved around the difference of classification by major of the College of Education sample versus what Holland (1969) reports as to the classification by teaching major for women. For example, of the fifteen majors represented in this sample, six were identical to Holland's when utilizing a four-point code (Holland only reported four-point classifications by major). They included

Elementary teacher (SAEI), Art teacher (ASIE), English teacher (SAEI), Physical Education teacher (SAEI), Social Studies teacher (SAIE) and Special Education teacher (SAEI). Two majors, Speech Therapy (SAEI) and Behavioral Science (SAEC) were not reported by Holland. For the remaining majors and their corresponding classification, differences were discovered. For example, Holland reported the code for Foreign Language as SAEI. The classification in this sample is ASEI. For Math teachers he reported a code of SIAC and for this sample SCAI. For Music teachers ASEI and for this sample ASIE. For Natural Science teachers ISAE and for this sample ISCA. For Speech teacher SAEI and for this sample SAEC. For Business teachers a code of SCEA was reported by Holland and for this sample a code of SACE was discovered. Finally for a Home Economics teacher, Holland reported a code of SAEI. For this sample a code of SAEC was derived. The classifications derived for this sample of College of Education female students provides a classification similar in most cases to Holland's. However, the differences in the classifications for certain majors might at least suggest some differences and provide support for the establishment of local norms.

One final observation in regard to the establishment of codes on classifications by major occupational groups. For this sample of College of Education women, the overall classification for the total group is SAEI. Holland's classification is SAIE. Examination of the relative location of the Intellectual and Enterprising scales in the four-point hierarchy might again provide the basis for the establishment of local norms when using and interpreting the VPI.

## Conclusion

After some three years of experience in using the VPI with women in the College of Education the following conclusions might be drawn:

1) The VPI and its consequent interpretation and use with women appears to be an appropriate use of the VPI.

2) The appearance of both the Social and Artistic scales within the top three or four scales of a student's profile hierarchy suggests the suitability of her choice of the general occupation, teaching.

3) Using a four to six point classification appears to discriminate better between the various teaching majors than does the use of a one to three point classification.

4) The establishment of local norms and the establishment of local VPI classifications by teaching majors appears to be preferable to relying solely upon Holland's classification.

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TABLE A

VOCATIONAL PREFERENCE INVENTORY*

(Sixth Revision)
NORMATIVE DATA

University of Missouri - Columbia
College of Education

Freshmen Women
(N=1,131)

| Scale | Mean | Standard Deviation |
|---|---|---|
| Realistic | 1.61 | 2.01 |
| Investigative (Intellectual) | 2.97 | 3.46 |
| Social | 8.20 | 3.50 |
| Conventional | 2.28 | 2.86 |
| Enterprising | 3.57 | 2.80 |
| Artistic | 6.87 | 4.38 |
| Self-Control | 9.27 | 3.51 |
| Masculinity | 3.53 | 2.11 |
| Status | 9.17 | 2.81 |
| Infrequency | 6.25 | 2.69 |
| Acquiescence | 11.74 | 4.52 |

*Data collected from September 1970 - April 1973

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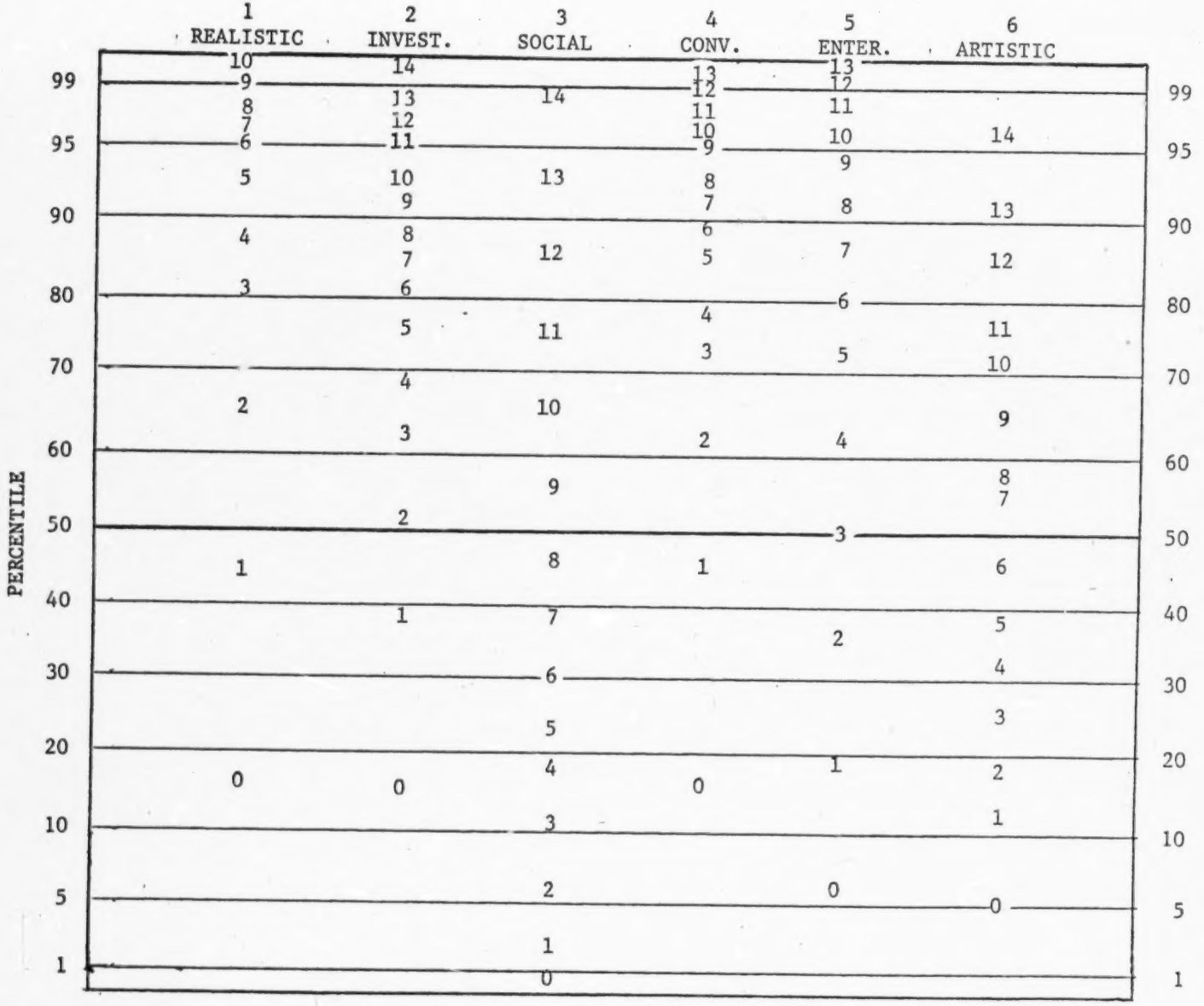
TABLE B

**Female Profile**

VOCATIONAL PREFERENCE INVENTORY
(N=1,131)

U. of Mo. College of Educ.




Prepared by Charles D. Schmitz

TABLE C

VOCATIONAL PREFERENCE INVENTORY

Classification Code by Teaching Major

College of Education
University of Missouri - Columbia

Female Only

| Teaching Major | N | Code | Mean of High Point Code | Mean of Low Point Code |
|---|---|---|---|---|
| Art | 46 | ASIERC | 10.24 | 1.36 |
| Behavioral Sciences | 7 | SAECIR | 9.00 | 1.14 |
| Business Subjects | 18 | SACEIR | 5.39 | 1.72 |
| Elementary | 364 | SAEICR | 8.57 | 1.62 |
| English | 96 | ASEICR | 8.25 | 1.18 |
| Foreign Language | 37 | ASEICR | 7.78 | 1.55 |
| Home Economics | 40 | SAECIR | 7.53 | 1.53 |
| Mathematics | 38 | SCAIER | 6.45 | 1.55 |
| Music | 46 | ASIECR | 6.92 | 1.71 |
| Natural Science | 11 | ISCAER | 7.80 | 2.80 |
| Physical Education | 77 | SAEIRC | 7.81 | 1.79 |
| Special Education | 133 | SAEICR | 9.49 | 1.60 |
| Social Studies | 60 | SAIECR | 8.16 | 1.34 |
| Speech | 21 | SAECIR | 7.33 | 0.71 |
| Speech Clinician | 29 | SAEICR | 9.48 | 1.72 |
| Teacher (N.E.C.) | 1,131 | SAEICR | 8.20 | 1.61 |

*Codes underlined to designate equal means.

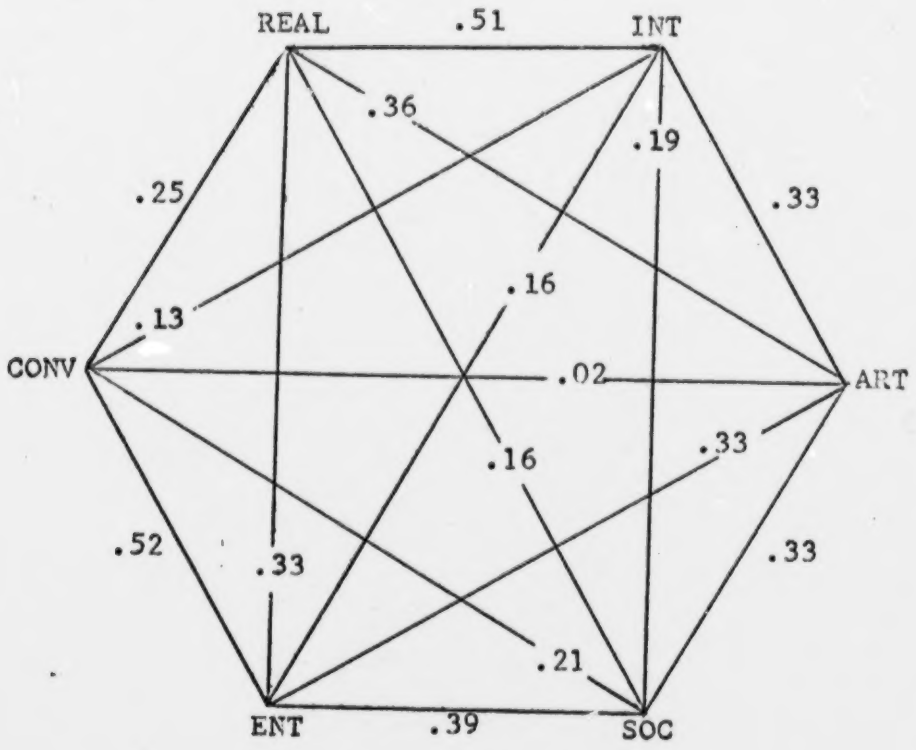
Prepared by Charles D. Schmitz

TABLE D

VOCATIONAL PREFERENCE INVENTORY

FEMALE ONLY

A Hexagonal Model for Interpreting
Inter-and Intra-Class Relationships




NOTE: Correlations are between VPI Scales for 1,131 females enrolled in the University of Missouri, College of Education.